Math 3 Remote Learning Checklist Name_____

Unit 4 – Modeling Periodic Behavior

Date	Lesson/Topics	Khan Academy Videos/Exercise Sets	Done?
Mon/Tues 5/4-5	**Live Session:** • $S = \frac{O}{H}\ C = \frac{A}{H}\ T = \frac{O}{A}$ • Right Triangle Trigonometry • Pythagorean Theorem		
	Pythagorean theorem	Use Pythagorean theorem to find right triangle side lengths – Exercise Set Special right triangles (honors) – Exercise Set	
	Right Triangle Trigonometry	Hypotenuse, opposite, and adjacent – article Trigonometric ratios in right triangles (12:10) Trigonometric ratios in right triangle – Exercise Set Solving for a side in right triangles with trigonometry (7:03) Solving for a side in right triangles – Exercise Set	
Wed/ Thur 5/6-7	**Live Session:** • Questions about Right triangle trig and Pythagorean theorem • Angles in a circle • Labeling angles using vertices of a triangle		
	Unit Circle and radians	Unit Circle (9:03) The trig functions & right triangle trig ratios (6:56) Unit Circle – Exercise Set Trig unit circle review – article	
	Radians	Intro to radians (10:50) Radians & degrees (7:10)	
Fri 5/8		**Right triangles & trigonometry: Quiz 2**	
Mon/ Tues 5/11-12	**Live Session:** • Answer Questions/Review about unit circle, trig, radians/degrees • Making triangles with angles bigger than 90/pi		
	Radians and degrees Using the unit circle for special angles	Retake **Right triangles & trigonometry: Quiz 2** if necessary Degrees to radians (7:01) Radians to degrees (3:19) Radian angles & quadrants (3:50) Radians & degrees – Exercise Set Unit circle (with radians) – Exercise Set	

Date	Lesson/Topics	Khan Academy Videos/Exercise Sets	Done?
Wed/ Thur 5/13-14	**Live Session:** • Answer Questions/Review about radians and degrees and using the unit circle for special angles • Introducing the Pythagorean identity and Pythagorean theorem. • Introduce finding cos(x) when you know sin(x) and vice versa. Introduce using the unit circle on angles within the triangle.		
	The Pythagorean Identity	Proof of the Pythagorean trig identity (6:11) Using the Pythagorean trig identity (6:14) Use the Pythagorean identity – Exercise Set Pythagorean identity review – Article	
	Using the unit circle for special angles	Trig values of special angles (7:52) Trig values of special angles – Exercise Set	
Fri 5/15		**Trigonometry: Quiz 2**	
Mon/ Tues 5/18-19	**Live Session:** • Answer Questions/Review about Pythagorean identity and using the unit circle on special angles. • Introduce graphing sine and cosine. • Introduce midline, amplitude, and period		
	Graphs of sin(x), cos(x)	Retake **Trigonometry: Quiz 2** if necessary Graph of y=sin(x) (9:21) Intersection points of y=sin(x) and y=cos(x) (11:06) Features of sinusoidal functions (4:57) Midline of sinusoidal functions from graph – Exercise Set Amplitude of sinusoidal functions from graph – Exercise Set Period of sinusoidal functions from graph – Exercise Set Midline, amplitude, and period review – Article (HONORS ONLY)	
Wed/ Thur 5/20-21	**Live Session:** • Answer Questions/Review about graphing sine and cosine • Introduce transformations and how to find and use the amp, midline, period • **Introduce Ferris Wheel Project**		
	Transforming sinusoidal graphs	Amplitude & period of sinusoidal functions from equation (8:20) Transforming sinusoidal graphs: vertical stretch & horizontal reflection (12:52) Transforming sinusoidal graphs: vertical & horizontal stretches (10:43)	

		Amplitude of sinusoidal functions from equation – Exercise Set Midline of sinusoidal functions from equation – Exercise Set Period of sinusoidal functions from equation – Exercise Set	
Fri 5/22		**Trigonometry: Quiz 3**	
Mon/Tues 5/25-26	**Live Session:** • Answer Questions/Review about graphing sine and cosine • Answer questions regarding project • Go over modeling with sine		
	Modeling with Trigonometry	Retake **Trigonometry: Quiz 3** if necessary. **Ferris Wheel Project** **THE FOLLOWING VIDEOS AND EXERCISE SETS ARE TO HELP WITH THE PROJECT!** Trig word problem: modeling daily temperature (10:54) Trig word problem: modeling annual temperature (7:08) Modeling with sinusoidal functions – Exercise Set Watch the following videos for help on the project Video 1 Video 2	